

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application:

Claim 1 (canceled)

Claim 2 (currently amended): The method of claim 19, wherein ~~generating a plurality of cutout particles comprises:~~

~~the depth map including a plurality of entries that each indicate a distance to a nearest geometric object from a camera position in a particular direction; and~~

~~generating cutout particles from at least some of the entries in the depth map, each cutout particle corresponding to an entry in the depth map in three-dimensional space.~~

Claim 3 (previously presented): The method of claim 2, wherein the cutout particles are generated at a higher resolution than a particle image.

Claim 4 (previously presented): The method of claim 2, wherein the cutout particles are generated at a higher resolution than the particle image along silhouette edges of the depth map.

Claim 5-13 (canceled)

Claim 14 (previously presented): The method of claim 19, further comprising:
computing a depth of field adjustment for a particle.

Claim 15 (previously presented): The method of claim 19, further comprising:
computing a motion blur adjustment for a particle.

Claim 16 (canceled)

Claim 17 (previously presented): The method of claim 19, wherein each list of coverage layers is generated by processing the particles in order from farthest from a camera position to nearest.

Claim 18 (original): The method of claim 17, wherein computing a list of coverage layers for a pixel comprises:

adding a new coverage layer for a particle from a particle system that follows a cutout particle in the processing.

Claim 19 (currently amended): A computer-implemented method to produce a particle image to be combined with a second image for animation, the method comprising:

generating a plurality of cutout particles associated with a three-dimensional position of objects in the second image;

for each of a plurality of pixels in the particle image, computing a list of coverage layers for the pixel, where each coverage layer in the list of coverage layers includes an accumulated color value due to one or more particles of a particle system and an amount occluded by one or more of the cutout particles;

determining the color of the pixels based on their associated coverage layer list; and
compositing each of the cutout particles with other particles of the particle system by alpha blending; and

displaying the composited image on a display;

wherein generating the cutout particles comprises:

computing a depth map having a plurality of entries for the second image; and

generating a cutout particle ~~for~~ from at least some of the entries in the depth map, each cutout particle having a position and radius in three-dimensional space corresponding to the one depth map entry.

Claim 20 (original): The method of claim 19, wherein at least portions of the depth map have a higher resolution than the particle image.

Claim 21 (previously presented): The method of claim 19, wherein the cutout particles are generated at a higher resolution than the particle image.

Claim 22 (previously presented): The method of claim 19, wherein generating a plurality of cutout particles comprises sampling geometric objects in the second image at a higher resolution than the particle image at least in areas where aliasing is likely to occur.

Claim 23 (currently amended): A ~~computer program product comprising a computer-readable medium containing computer program code for performing the method of claim 19.~~

Claim 24 (previously presented): A system for generating an image, the system carrying out the method of claim 19.

Claim 25-36 (canceled)